

# FEB 1 0 2006

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555 Serial No. 06-101 KPS/LIC/RR: RO Docket No. 50-305 License No. DPR-43

DOMINION ENERGY KEWAUNEE, INC. KEWAUNEE POWER STATION LICENSEE EVENT REPORT 2005-016-01

Dear Sirs:

Pursuant to 10 CFR 50.73, Dominion Energy Kewaunee, Inc., hereby submits the following Licensee Event Report applicable to Kewaunee Power Station.

Report No. 50-305/2005-016-01

This report has been reviewed by the Plant Operating Review Committee and will be forwarded to the Management Safety Review Committee for its review.

If you have any further questions, please contact Mr. Richard Repshas at (920) 388-8217.

Very truly yours,

Michael G. Gaffney

Site Vice President, Kewaunee Power Station

Attachment

Commitments made by this letter: NONE

IEDD

cc: Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
2443 Warrenville Road
Suite 210
Lisle, IL 60532-4352

Mr. D. H. Jaffe Project Manager U.S. Nuclear Regulatory Commission Mail Stop O-7-D-1 Washington, D. C. 20555

NRC Senior Resident Inspector Kewaunee Power Station

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION 6-2004)					APPROVED BY OMB NO. 3150-0104				<del></del>	EXPIRES 6-30-2007						
LICENSIEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)							Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet email to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0066), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.									
LITY NAME	≣ (1)					٠		DOCKET NUMBER (2)					PAGE (3)			
vaunee	Power S	tation					- 1	05000305					1 of 3			
(4)	_															
omatic	Reactor	Trip d	ue to	Main F	eedw	ater I	Pump	) Mo	tor Failu	re						
EVE	NT DATE: (5)			LER NUMBER (6)				REPORT DATE (7)				OTHER FA	CILITIES INVOLVED (8)			
			l	SEQU	ENTIAL	REV				FA	CILITY NAME	DOCKET NUMBER				
10	DAY	YEAR	YEAR	RUN F		NO	МО	DAY	YEAR	<u> </u>						
11	28	2005	200	5 0	16	01	02	10	2006	FA	CILITY NAME		DOCKE	TNUMBER		
OPERAT	ING	NI		THIS R	PORT	S SUB	MITTED	PURS	UANT TO TH	E RI	EQUIREMENT	S OF 10 CF	R : (Cr	eck all that ap	oply) (11)	
MODE	(9)	IV.	20.2201(b) 20.23			20.22	203(a)(3)(ii) 50.73(a)(2)(ii)(B)			(ii)(B)	50.73(a)(2)(ix)(A)					
		100	20.2201(d)				20.22	20.2203(a)(4)			50.73(a)(2)(lii)			50.73(a)(2)(x)		
LEVEL (	(10)	100	20	).2203(a)(1)		50.36(c)(1)(i)(A)		X	X 50.73(a)(2)(iv)(A)		73.71(a)(4)					
			20	0.2203(a)(	2)(i)		50.36	(c)(1)	(ii)(A)	$oxed{oxed}$	50.73(a)(2)(	v)(A)	73.	71(a)(5)		
		$\rightarrow$				——						OTHER				
			20.2203(a)(2)(iv) 50.7			50.46				<del>                                     </del>		Specify in Abstract below or in				
										··	INAC POINT 300A					
				20.2203(a)(2)(v)												
													Albert S			
The state of the s												viii)(B)				
					LICE	ENSEE	CONIT	ACT	OR THIS L							
NAME  Plake and Place have																
	<del></del>	COMPL	EIEO	NE LINE	FOR EA	T	<u>JMP(JI</u>	NENI	FAILURE I	JES	CHIBED IN I	HIS REPU	JH (13)	<u> </u>	T	
									044405			0014001	- I	MANU-	REPORTABLE	
AUSE	SYSTEM	сом	PONENT	FACTU	JRER	10	EPIX	-I	CAUSE	-	SYSTEM	COMPON	ENI	FA CTURER	TO EPIX	
AUSE X	SYSTEM SJ		MO	A1		1	ES		CAUSE	$\dagger$	SYSTEM	COMPON	ENI	FA CTURER	TO EPIX	
	SJ	N	/O		80	Y	ES	10.00 (10.00) (10.00)	CAUSE	+	EXPECT		MONTH		TO EPIX YEAR	
	LIC LITY NAMI Vaunee (4) Omatic EVER MO 1 OPERAT MODE POWE LEVEL	LICENSEE  (See reve digits/ch  LITY NAME (1)  //aunee Power S  (4)  Omatic Reactor  EVENT DATE (5)  //O DAY  1 28  OPERATING MODE (9)  POWER  LEVEL (10)	LICENSEE EVEN  (See reverse for redigits/characters  LITY NAME (1)  // aunee Power Station  (4)  Omatic Reactor Trip description  EVENT DATE (5)  // DAY YEAR  11 28 2005  OPERATING MODE (9)  POWER LEVEL (10)  ard Repshas	LICENSEE EVENT RE  (See reverse for required digits/characters for earlies/characters for e	LICENSEE EVENT REPORT (  (See reverse for required number digits/characters for each block  LITY NAME (1)  // aunee Power Station  (4)  Domatic Reactor Trip due to Main Formatic Reactor Trip due to Main Formati	LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)  LITY NAME (1)  // aunee Power Station  (4)  Omatic Reactor Trip due to Main Feedw  EVENT DATE (5)  LER NUMBER (6)  // AD  DAY  YEAR  YEAR  YEAR  SEQUENTIAL  NUMBER  NUMBER  NUMBER  11  28  2005  POWER  LEVEL (10)  POWER  LEVEL (10)  100  20.2203(a)(2)(i)  20.2203(a)(2)(ii)  20.2203(a)(2)(iv)  20.2203(a)(2)(v)  20.2203(a)(3)(i)  LICENSEE EVENT REPORT (LER)  SEQUENTIAL  NUMBER (6)  20.2201(b)  20.2203(a)(2)(ii)  20.2203(a)(2)(v)  20.2203(a)(2)(v)  20.2203(a)(2)(v)  20.2203(a)(3)(i)  LICENSEE EVENT REPORT (LER)  SEQUENTIAL  NUMBER (6)  20.2203(a)(2)(v)  20.2203(a)(2)(v)  20.2203(a)(2)(v)  20.2203(a)(3)(i)  LICENSEE EVENT REPORT (LER)  SEQUENTIAL  NUMBER (6)  20.2203(a)(2)(v)  20.2203(a)(2)(vi)  20.2203(a)(2)(vi)  20.2203(a)(3)(vi)  LICENSEE EVENT REPORT (LER)  SEQUENTIAL  NUMBER (6)  20.2201(b)  20.2203(a)(2)(vi)  20.2203(a)(2)(vi)  20.2203(a)(3)(vi)  20.2203(a)(3)(vi)  20.2203(a)(3)(vi)  20.2203(a)(3)(vi)  20.2203(a)(3)(vi)	LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)  LITY NAME (1)  // Aunee Power Station  (4)  Omatic Reactor Trip due to Main Feedwater International Sequential Revention Not the Note of Sequential Revention Note of Sequential Note of Sequential Revention Note of Sequential Note of Sequentia	LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)  LTY NAME (1)  // Aunee Power Station  (4)  DMATE (5)  LER NUMBER (6)  EVENT DATE (5)  LER NUMBER (6)  AO  DAY  YEAR  YEAR  SEQUENTIAL  NUMBER  NO  MO  L1  28  2005  2005  016  01  02  OPERATING  MODE (9)  POWER  LEVEL (10)  100  20.2201(d)  20.2201(d)  20.2203(a)(2)(i)  50.36  20.2203(a)(2)(ii)  50.46  20.2203(a)(2)(v)  50.73  20.2203(a)(2)(v)  50.73  20.2203(a)(2)(v)  50.73  20.2203(a)(2)(v)  50.73  LICENSEE CONT  Mard Repshas  COMPLETE ONE LINE FOR EACH COMPORT	LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)  (See reverse for required number of digits/characters for each block)  (Total figure and the property of t	LICENSEE EVENT REPORT (LER)  (See reverse for required number of digits/characters for each block)  (See reverse for required number of digits/characters for each block)  (See reverse for required number of digits/characters for each block)  (ITY NAME (1)  (Author Power Station  (ITY NAME (1)  (ITY NAME (	LICENSEE EVENT REPORT (LER)	LICENSEE EVENT REPORT (LER)   (See reverse for required number of digits/characters for each block)   George reverse for required number of digits/characters for each block)   George reverse for required number of digits/characters for each block)   George required response to commail to infocollects@nrc.gov, and to the Affairs, ReCB-1:202 (30-0066), Giff if a means used to impose an information control number, the NRC may not condition, the information collection.	LICENSEE EVENT REPORT (LER)		Secure   S	

#### ABSTRACT

On November 28, 2005 at 2219 central standard time (CST), while the plant was operating at 100 percent power with no abnormal indications, the 'B' main feedwater pump tripped on a bus 2 feeder breaker trip (overcurrent trip on a 4160 volt bus). During the transient, 'B' steam generator reached its low-low level setpoint actuating a reactor protection system reactor trip at 2220 CST. All systems responded as designed. Subsequent inspection of the 'B' main feedwater pump identified a short to ground in all three phases of the motor.

This event was reported as a non-emergency in accordance with 10 CFR 50.72(b)(2)(iv)(B) for actuation of the reactor protection system when the reactor is critical and 10 CFR 50.72(b)(3)(iv)(A) for valid actuation of the auxiliary feedwater system.

Since all safety systems operated as expected, this event is considered to have negligible safety significance. This is not considered a safety system functional failure.

The 'B' main feedwater pump motor was replaced and the reactor startup was completed on November 29, 2005 at 2236 CST with the plant output breaker being closed on November 30, 2005 at 0335 CST. Full power was reached on December 2, 2005 at 1938 CST.

(1-2001)

## LICENSEE EVENT REPORT (LER)

**TEXT CONTINUATION** 

FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER (6)		PAGE (3)
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3
		2005	016	01	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

### **Event Description:**

On November 28, 2005 at 2219 central standard time (CST), while the plant was operating at 100 percent power with no abnormal indications, the 'B' main feedwater pump [P][SJ] tripped on a bus 2 [BU][EA] feeder breaker [BKR] trip (overcurrent trip on a 4160 volt bus). During the transient, the plant responded by initiating an automatic turbine [TRB][TA] runback and automatically increasing the opening of the main feedwater regulating valves [V][SJ] in an attempt to restore steam generator [SG] level. As 'B' steam generator level continued to decrease, operators took manual action to control feedwater to restore steam generator level. 'B' steam generator level continued to decrease and reached its low-low level setpoint actuating a reactor protection system reactor trip [RCT] at 2220 CST. The two motor-driven auxiliary feedwater pumps [P][BA] and the turbine-driven auxiliary feedwater pump [P][BA] started as expected since water level in both steam generators reached their low-low steam generator water level of 17%. All systems responded as designed. Subsequent inspection of the 'B' main feedwater pump identified a short to ground in all three phases of the motor [MO].

This event was reported in accordance with 10 CFR 50.72(b)(2)(iv)(B) for actuation of the reactor protection system when the reactor is critical and 10 CFR 50.72(b)(3)(iv)(A) for valid actuation of the auxiliary feedwater system.

The 'B' main feedwater pump motor had been in service since 1998 when it was last reconditioned.

The 'B' main feedwater pump motor was replaced and the reactor startup was completed on November 29, 2005 at 2236 CST with the plant output breaker being closed on November 30, 2005 at 0335 CST. Full power was reached on December 2, 2005 at 1938 CST.

### **Event Analysis and Safety Significance:**

This condition is being reported in accordance with 10 CFR 50.73(a)(2)(iv)(A) for any event or condition that resulted in manual or automatic action of "(B)(1), reactor protection system (RPS) including: reactor scram or reactor trip" and "(B)(6), PWR auxiliary or emergency feedwater system."

Since all safety systems operated as expected, this event is considered to have negligible safety significance.

This is not considered a safety system functional failure.

#### Cause:

The root cause of the main feedwater pump motor fault is a stator winding to coil short that has resulted in all three phases reading a short to ground. Visual inspection in the proximity of the faulted winding area indicates that vibration and degraded insulation resistance played a major contributing role in the fault.

NRC FORM 366A

(1-2001)

U.S. NUCLEAR REGULATORY COMMISSION

## LICENSEE EVENT REPORT (LER)

**TEXT CONTINUATION** 

FACILITY NAME (1)	DOCKET NUMBER (2)		LER NUMBER (6)		PAGE (3)
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 of 3
		2005	016	01	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

#### **Corrective Actions:**

- 1. 'B' main feedwater pump motor was replaced with a spare motor.
- 2. Review large electric motor predictive and preventive maintenance program and implement improvements identified based on industry guidance.

#### Similar Events:

LER 93-001, Phase-to-Phase Fault in Main Feedwater Pump Causes Bus 1 and 2 Undervoltage Condition Resulting in Automatic Reactor Trip